

REPORT ON BOILERS.

No. 77720

Date of writing Report

192

When handed in at Local Office

21/3/1924

Port of

Received at London Office

FRI. APR. 4 1924

NEWCASTLE-ON-TYNE

No. in Reg. Book

Survey held at Newcastle

Date, First Survey

11. Sept. 1923

Last Survey

20. March 1924

32412

on the

SAN SALVADOR

(Number of Visits)

Gross Tons

5650

Net

Master

Built at Newcastle

By whom built

S. W. G. Armstrong & Co. Ltd.

Co. Ltd.

Yard No. 992

When built

1924

Engines made at

Newcastle

By whom made

Wallsend Slipway & Eng. Co. Ltd.

Engine No. 840

When made

1924

Boilers made at

Newcastle

By whom made

Wallsend Slipway & Eng. Co. Ltd.

Boiler No. 840

When made

1924

Nominal Horse Power

538

Owners

Esso Oil Transport Co. Ltd.

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Johns & Sons Ltd.

(Letter for Record (R))

Total Heating Surface of Boilers

7896 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

3 Single-End Cylindrical 3SB.

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

26.4.23

No. of Certificate

9754

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

62 sq ft

No. and Description of safety valves to each boiler

Two Spring-loaded

Area of each set of valves per boiler

per Rule 20.2 sq in

as fitted 22.09 sq in

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

20 3/4 in

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

27 1/2 in

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

15'-6 1/16 in

Length

12'-2 7/8 in

Shell plates: Material

Steel

Tensile strength

30/34 lb

Thickness

1 7/32 in

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end J.R.

long. seams

Double-Rivet

Diameter of rivet holes in

circ. seams 1 1/16 in

long. seams 1 5/16 in

Pitch of rivets

4.757 in

Percentage of strength of circ. end seams

plate 69.78

rivets 48.43

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.3

rivets 89.5

combined 90.76

Working pressure of shell by Rules

184 lbs

Thickness of butt straps

outer 1 1/16 in

inner 1 1/16 in

No. and Description of Furnaces in each Boiler

Three

3 Cf. masonry

Material

Steel

Tensile strength

26/30 tons

Smallest outside diameter

45 5/8 in

Length of plain part

top

bottom

Thickness of plates

crown 5/8 in

bottom 5/8 in

Description of longitudinal joint

weld

Dimensions of stiffening rings on furnace or c.c. bottom

Working pressure of furnace by Rules

202 lbs

End plates in steam space: Material

Steel

Tensile strength

26/30 tons

Thickness

1 7/16 in

Pitch of stays

23 1/2" x 23 1/2"

How are stays secured

Double-Nuts

Working pressure by Rules

191 lbs

Tube plates: Material

front Steel

back Steel

Tensile strength

26/30 tons

Thickness

1 in

3/16 in

Mean pitch of stay tubes in nests

9.26 in

Pitch across wide water spaces

13 3/4 in

Working pressure

front 202 lbs

back 295 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

8 7/8" - 1 1/2"

Length as per Rule

35 1/2 in

Distance apart

8 1/4 in

No. and pitch of stays

in each

Three 8 3/8"

Working pressure by Rules

182 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons

Thickness: Sides

5/8 in

Back

5/8 in

Top

5/8 in

Bottom

27 in

Pitch of stays to ditto: Sides

8 7/8" x 8 3/8"

Back

8 7/8" x 8 1/2"

Top

8 7/8" x 8 1/4"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

183 lbs

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons

Thickness

1 in

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Thickness

7/8 in

Pitch of stays at wide water space

14 1/4 in

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

205 lbs

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

At body of stay

3 3/4 in

or Over threads

No. of threads per inch

Six

Area supported by each stay

529 sq in

Working pressure by Rules

208

Screw stays: Material

Iron

Tensile strength

2 1/2 tons

Diameter

At turned off part

1 3/4 in

or Over threads

No. of threads per inch

Nine

Area supported by each stay

744 sq in

Lloyd's Register Foundation

W 411 0225

